Allison studies Antarctic ice shelves, the floating ice at the edges of the Antarctic ice sheet. She uses remote sensing data collected from airplanes and satellites and analyzes the data with her computer at the Byrd Center.

Airborne and satellite technologies measure the height, thickness, and speed of the ice. Remote-sensing glaciologists like Allison create computer programs to study how the ice changes through time.

When ice shelves break apart or melt, more ice flows into the ocean which raises sea level. Allison's research is important for understanding ice shelf stability.

Allison Chartrand is a Ph.D. candidate in the Glacier Dynamics Research Group at Byrd. She grew up in the glacially-formed hills of upstate New York, where she developed a love for frozen and liquid water sports — she once skied on snow and water in the same afternoon! Allison switched from a career in music to a career in science because of her fascination with glaciers, but she still plays French horn when she’s not looking at ice.

Allison loves to share science with others. In addition to presenting to peers at scientific conferences, Allison participates in several outreach initiatives each year to excite a diverse group of people about Earth Science. She strives to show young people that they can be scientists, too!